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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,042	03/27/2004	Richard J. Lech	17540	9528

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EXAMINER	
LOPEZ, FRANK D	

ART UNIT	PAPER NUMBER
3745	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/811,042	LECH ET AL.	
	Examiner	Art Unit	
	F. Daniel Lopez	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 3/27/04 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3/27/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

The drawings are objected to because in figure 2 and 3, "Loader Valves and Actuators" must be relabeled --Loader Open Center Valves and Actuators--; "Boom Swing V. and A." must be relabeled – Boom Swing Closed Center Valve and Actuator--, "Other Backhoe Valves and Actuators" must be relabeled --Other Backhoe Closed Center Valves and Actuators— and "Backhoe Valves and Actuators" must be relabeled --Backhoe Closed Center Valves and Actuators—.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claims 5 and 14 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5 line 2-3 "the second pump being responsive to some loads" and claim 14 line 1-2 "the second pump is...responsive to at least one load" are wrong, since the second pump is a fixed displacement pump and is not responsive to any load. It is understood that there is a reloader valve connected to the second pump, which is responsive to some of the loads, but this is not the second pump.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-4, 6, 7, 9-13, 15 and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Lech (5,471,908) in view of Lech et al (5,413,452). Lech discloses a hydraulic system (e.g. fig 6) for a work vehicle comprising a priority valve (125) communicating with a first fixed displacement pump (53) and distributing flow to primary (connected to line 119) and secondary outlets; with a steering valve (65) and a plurality of first valves (121, 123, 91), including a boom swing valve (73a) connected to the primary outlet and a plurality of open center valves (25a), including a loader bucket valve (60a) connected to the secondary outlet; wherein the priority valve is responsive to a load (via 131) of the plurality of first valves; a second fixed displacement pump (51) providing fluid to the plurality of first valves; but does not disclose that the plurality of first valves are closed center valves; or that the first and second pumps are gear pumps.

Lech et al teaches, for a hydraulic system for a work vehicle comprising a priority valve (86) communicating with a first fixed displacement pump (48) and distributing flow to primary (connected to line 88) and secondary outlets; with a plurality of first valves, including a steering valve (136) and a boom swing valve (74) connected to the primary outlet and a plurality of open center valves (51, 55, 59), including a loader bucket valve (51) connected to the secondary outlet; wherein the priority valve is responsive to a load (via 104) of the plurality of first valves; that the boom swing valve is a closed center valve.

Since Lech does not disclose whether the plurality of first valves are open or closed center vales, since Lech et al discloses the boom swing valve, which is one of the plurality of first valves, is a closed center valve, and since the plurality of first valves control actuators similar to the boom swing valve; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the plurality of first valves of Lech closed center valve, as taught by Lech et al, as a matter of engineering expediency.

Official notice is taken that gear pumps are well known fixed displacement hydraulic pumps. It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the fixed displacement pumps of Lech gear pumps, as a matter of engineering expediency.

Claims 8 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Lech (5,471,908) in view of Lech et al (5,413,452), as applied to claims 7 and 16, respectively, above, and further in view of Johnston. The modified Lech discloses all of the elements of claims 8 and 17; but does not disclose a reloader valve between the second pump and the closed center valves and responsive to a load signal on a load signal line coupled to the closed center valves. Note that "reloader" is considered a name only and not considered to have any intrinsic limitation.

Johnston teaches, for a hydraulic system for a work vehicle comprising first and second fixed displacement pumps (44, 42) providing fluid to a plurality of first valves (50); that a reloader valve (48) is located between the second pump and the first valves and responsive to a load signal on a load signal line (via 106, 108) coupled to the first valves, for the purpose of decreasing energy use (e.g. column 1 line 23-30).

Since Lech and Johnston are both from the same field of endeavor, the purpose disclosed by Johnston would have been recognized in the pertinent art of Lech. It would have been obvious at the time the invention was made to one having ordinary skill in the art to locate a reloader valve between the second pump and the closed center valves of the modified Lech and responsive to a load signal on a load signal line coupled to the closed center valves, as taught by Johnston, for the purpose of decreasing energy use.

Claims 1-4, and 6 are rejected under 35 U.S.C. § 103 as being unpatentable over Lech et al (5,413,452) in view of Gage et al (4,809,586). Lech et al discloses a hydraulic system for a work vehicle comprising a priority valve (86) communicating with a first fixed displacement pump (48) and distributing flow to primary (via 88) and secondary outlets; with a plurality of first valves, including an open center steering valve (136) and a closed center boom swing valve (74), connected to the primary outlet and a plurality of open center valves (51, 55, 59) connected to the secondary outlet; wherein the priority valve is responsive to a load (via 104) of the plurality of first valves; but does not disclose that the plurality of first valves are closed center valves; or that the first pump is a gear pump.

Gage et al teaches, for a hydraulic system for a work vehicle comprising a priority valve (122) communicating with a first fixed displacement pump (100) and distributing flow to primary (connected to line 202) and secondary outlets; with a steering valve (214) connected to the primary outlet and a plurality of open center valves connected to the secondary outlet; wherein the priority valve is responsive to a load (via 125) of the steering valve; that the steering valve is a closed center valve.

Since the steering valves of Lech et al and Gage et al are functionally equivalent in the work vehicle art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the steering valve of Lech et al closed center valve, as taught by Gage et al, as a matter of engineering expediency.

Official notice is taken that gear pumps are well known fixed displacement hydraulic pumps. It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the fixed displacement pump of Lech et al a gear pump, as a matter of engineering expediency.

Claims 1, 2, and 6 are rejected under 35 U.S.C. § 103 as being unpatentable over Casey et al in view of Gage et al (4,809,586). Casey et al discloses a hydraulic system for a work vehicle comprising a priority valve (17) communicating with a first fixed displacement pump (11) and distributing flow to primary (19) and secondary (21) outlets; with a closed center steering valve (41) and a closed center brake valve (57)

connected to the primary outlet and an auxiliary hydraulic circuit (23) connected to the secondary outlet; wherein the priority valve is responsive to a load (via 29) of the plurality of first valves; but does not disclose that the auxiliary hydraulic circuit includes a plurality of open center valves; or that the first pump is a gear pump.

Gage et al teaches, for a hydraulic system for a work vehicle comprising a priority valve (122) communicating with a first fixed displacement pump (100) and distributing flow to primary (connected to line 202) and secondary outlets; with a closed center steering valve (214) connected to the primary outlet and an auxiliary hydraulic circuit connected to the secondary outlet; wherein the priority valve is responsive to a load (via 125) of the plurality of first valves; that the auxiliary hydraulic circuit includes a plurality of open center valves (306, 308, 310).

Since Casey et al does not disclose whether the auxiliary hydraulic circuit is, and Gage et al does; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the auxiliary hydraulic circuit of Casey et al includes a plurality of open center valves, as taught by Gage et al, as a matter of engineering expediency.

Official notice is taken that gear pumps are well known fixed displacement hydraulic pumps. It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the fixed displacement pump of Casey et al a gear pump, as a matter of engineering expediency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

F. Daniel Lopez
Primary Examiner
Art Unit 3745
February 6, 2006